萎凋處理對包種茶製茶過程中兒茶素類成分含量變化與成茶品質之影響

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摘　要：於88年秋、冬季及89年春、秋季以台茶12號品種茶菁，於進行日光萎凋時給予不同程度照光後，再進行室內萎凋及攪拌、炒菁、揉捻與乾燥等步驟，製成文山包種茶。根據初步結果，88年秋、冬茶及89年春、秋茶供試茶菁之水分含量百分率分別介於75.55% ~78.10% 、76.30% ~79.25% 、75.50% ~76.40% 及76.69% ~79.61% ；經室內萎凋至殺菁前茶菁之水分含量百分率分別介於68.50% ~73.75% 、71.75% ~75.75% 、67.00% ~72.75% 及67.45% ~76.15% ；經日光萎凋及室內萎凋後，茶菁之水分含量散失百分率分別介於4.35% ~7.05% 、3.15% ~4.75% 、2.75% ~8.8% 及3.46% ~9.67% 。由初步觀察，隨照光總量之增加，日光萎凋時溫度會提高且溼度降低，而茶菁之水分含量散失百分率與照光總量成正相關。經HPLC分析，88年秋、冬茶及89年春茶茶菁兒茶素(EGC、± C、-EC、EGCG及ECG)與Gallic acid和Caffeine之總含量則分別介於293.6~309.5mg/g d.w. 、194.8~218.7mg/g d.w. 及282.6~319.4mg/g d.w.。萎凋過程中各兒茶素成分之變化，其中趨勢較明顯者如88年秋茶-EC上升、EGCG及 ECG下降，88年冬茶EGCG及 ECG含量下降，89年春、秋茶則尚待進一步分析。官能品評結果，各季之最高品質得分分別為88年秋茶73.8分、88年冬茶80.0分、89年春茶81.7分、89年秋茶74.3分。經相關性分析，照光總量與成茶之水色品質成負相關。

Effects of Withering on Contents of Catechins and Produced Tea Quality During Manufacture Process in Paochung Tea

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Abstract：Fresh leaves of tea plant cultivar T.T.E.S No.12 were treated with different degree of solar withering and then subjected to indoor withering, panning, rolling, breaking and drying to produce Paochung Tea in year 1999-2000. As the primarily results, water content ratio of fresh tea leaves plucked in 1999 autumn, winter and 2000 spring, autumn were 75.55 % ~78.10% ,76.30% ~79.25% ,75.50% ~76.40% , 76.69% ~79.61% and before panning the water content ratio of fresh tea leaves were down to 68.50% ~ 73.75% 、71.75% ~ 75.75% 、67.00% ~ 72.75% and 67.45% ~ 76.15% ,respectively. After solar and indoor withering, the lost water content ratio of fresh tea leaves were between 4.35% ~7.05% 、3.15% ~4.75% 、2.75 % ~8.8% 及 3.46% ~9.67% ,respectively. As the total lighting PPF increased, the temperature rose and the relative humidity (RH %) decreased during solar withering . The lost water content ratio were positively correlated to the total lighting PPF. By HPLC analysis, the total contents of catechins (EGC,± C,-EC,EGCG and ECG),Gallic acid and Caffeine of fresh tea leaves in 1999 autumn ,winter and 2000 spring were 293.6 ~ 309.5 mg/g d.w., 194.8 ~ 218.7 mg/g d.w. and 282.6 ~ 319.4 mg/g d.w., respectively. During tea manufacture process, –EC increased in 1999 autumn and EGCG,ECG decreased in 1999 autumn and winter. By sensory evaluation the highest quality of produced tea got scores of 73.8(1999 autumn),80.0(1999 winter),81.7(2000 spring) and 74.3(2000 autumn). Total lighting PPF had a negative correlation to color of liquor of the produced tea.